



Dr. Ralf Kopp

Contours of a socio-digital transformation approach for Leadership

International Conference: Social Innovation and Socio-Digital Transformation – Towards a Comprehensive Innovation Policy

Session: Combining Social Innovation and Technological Development: A Holistic Innovation Process

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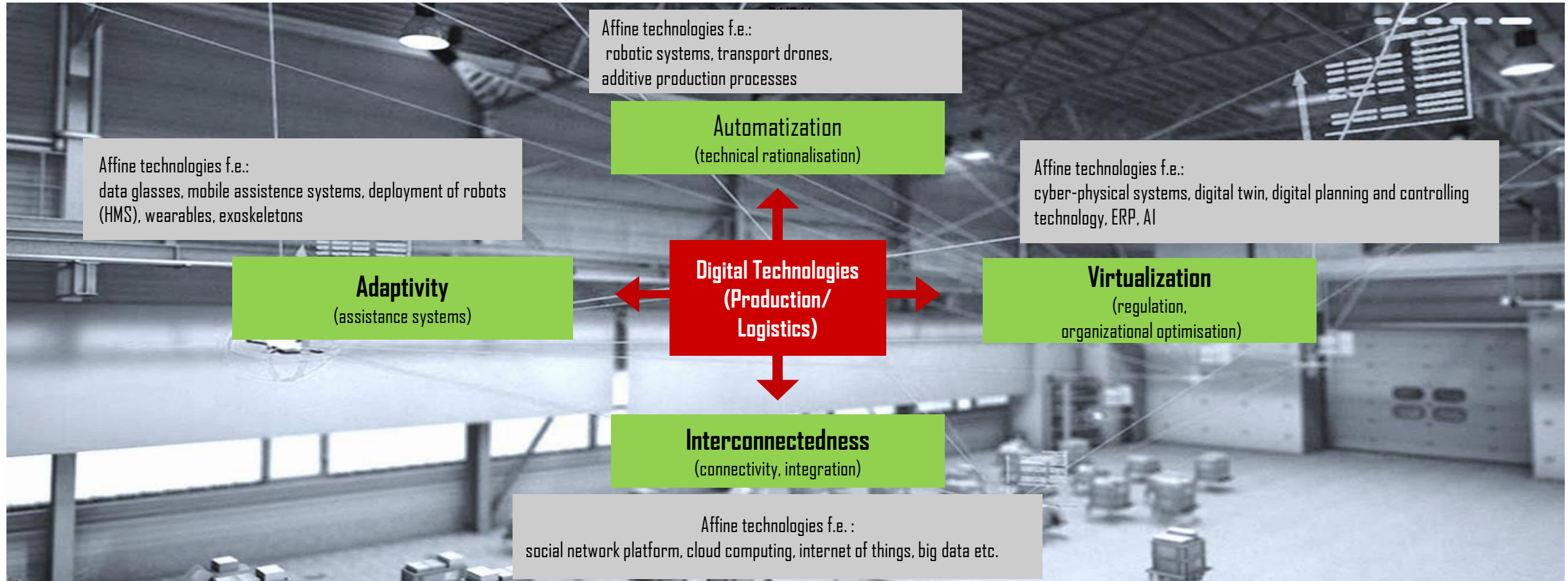
Why it is time for new approaches?
What means ,digital transformation'?
Why more social innovation / workplace innovation?
What means digital transformation in Germany?
What is the challenge for leadership?
What is the ,magic' triangle?
What is joint optimization?
Who is eLLa?



"The digital transformation is rapidly changing the demand for workers' skills and task competencies. This way, the digital transformation is contributing to skill mismatch and shortages that require investments in employee training."

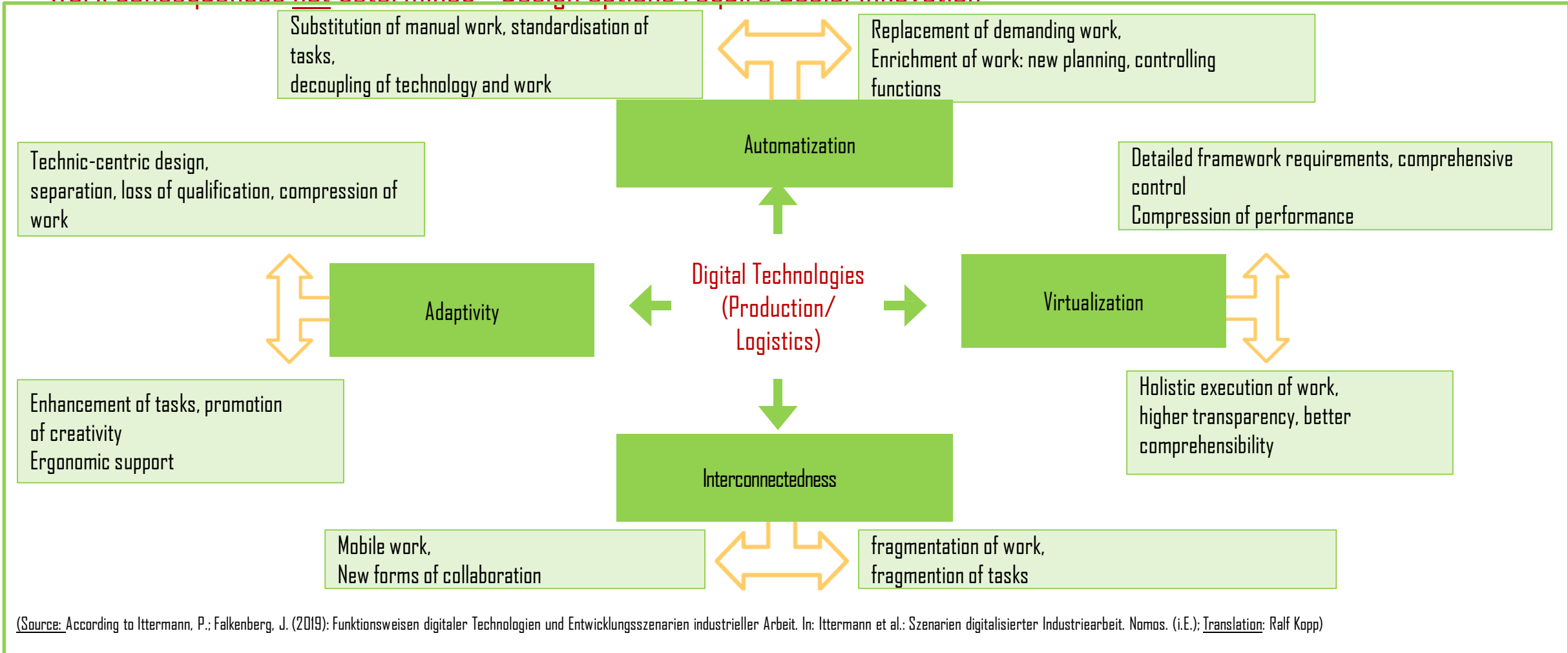
(EU-HLEG 2019, p. 31)

What means ‚digital transformation‘ in production and logistics?



(Foto: IML Innovationslabor 2018 / Source: according to Ittermann, P.; Falkenberg, J. (2019): Funktionsweisen digitaler Technologien und Entwicklungsszenarien industrieller Arbeit. In: Ittermann et al.: Szenarien digitalisierter Industriearbeit. Nomos. (i.E.); Translation: Ralf Kopp)

Work consequences not determined - Design options require Social Innovation



Social Innovation

- New combination and/or new configuration of social practices
- Intention is to create better than established practices for society or societal sub-areas
- Socially accepted and widely diffused
- Not “good for all” but ambivalent
- Can precede, accompany or follow technological innovation
- Ultimately institutionalized / routinized



2010



Social Innovation at the workplace

"Societal challenges such as empowerment, active ageing, health, skills, diversity and the inclusion of disadvantaged groups are centrally addressed through work, and thus require social innovation in the workplace leading to smarter and better working." (Source: Vienna Declaration 2011)



Social Innovation / Transformation of Work / Workplace Innovation / Sociotechnical Systemthinking

Workplace Innovation is a social, participatory process which shapes work organization and working life, combining their human, organizational and technological dimensions. This participatory process simultaneously results in improved organizational performance and enhanced quality of working life.

(Dortmund/Brussels Position Paper on Workplace Innovation 12 June 2012)

Digital Transformation - Made in Germany

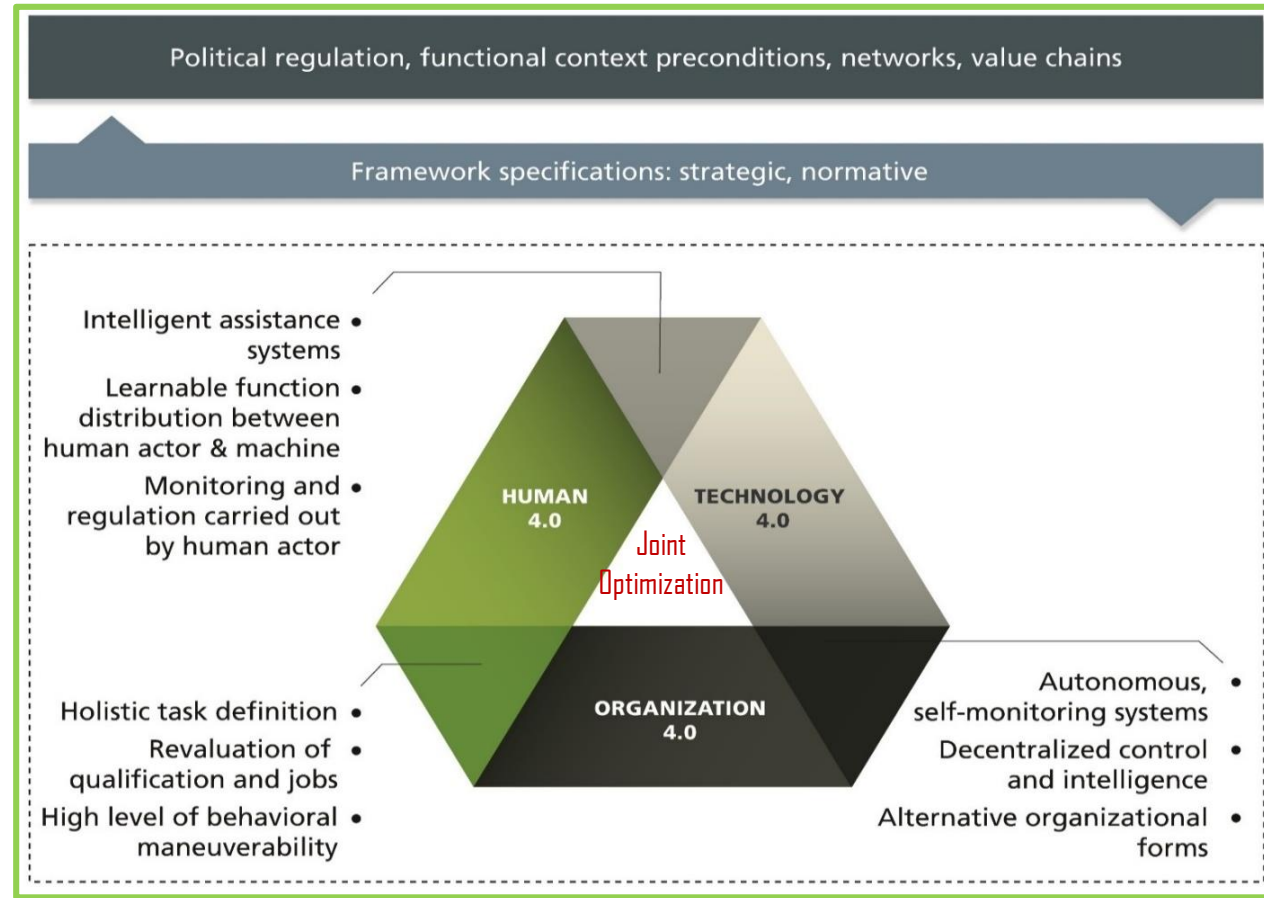
- Highly connected dialogue and coordinated (polycentric) activities on regional/national level between diverse actors
- Broad common sense of guiding principles on discursive-programmatically level
- Relative (!) continuity of (application oriented) labor research (German Framework Programs)



Nevertheless: Continuation of the techno-centric age

- Industry 4.0 (AI) are extreme high-tech-driven visions / ‚techno-utopia‘ (Hirsch-Kreinsen 2016, p. 21)
 - Main actors: High-tech-industry, software enterprises and mechanical engineering
 - Neglection of fears, limitations of extreme digitalization, critique, scepticism (SMEs)
- > „Enlightened“ techno-centrism
- > Not enough Joint Optimization (Technological Innovation and Social Innovation at the same time)
- > On enterprise level: Lack of knowhow

Challenge for Leadership: Joint optimization in socio-digital systems



(Source: According to Ittermann et al., 2016; ; Translation: Ralf Kopp)

BEFÖRDERT VOM

Principles of „Good Digital Work in Industry“

Guiding Principles	Key Characteristics
Complementarity	Function sharing between robot and human due to specific strenghts
Adaptivity	Adaption to individual preconditions of operators (skills, experiences)
Holistic nature	Completeness of activities, self-regulation, reducing physical burdens and mental stress
Participation	Involvement of future users in development processes of a new technology
Decentralized Control Systems	Self-organizing socio-technical systems, allowing scope of decision in self-managed teams
Promoting multiple skills	Mastery of different tasks within a team, enabling job rotation

(Source: According to Hirsch-Kreinsen et al., 2017; Translation: Ralf Kopp)

The eLLa4.0-Project: Excellent Leadership and Labour 4.0

Basic Assumptions

- „Good management/leadership has to develop participative forms for managing and innovating socio-digital systems based on socio-digital system-thinking!
- Executive staff has to lead the joint optimization of complex, dynamic (and partly divergent) interaction!
- Executive staff needs interaction competence for joint optimization!

„The conditions become more confusing, different forms of order are established side by side, the principle of differentiation allows parallel structures (...).“

(Source: Nassehi, A. 2019, p. 329; Translation: Ralf Kopp)



Multifocal Joint Optimization

- Triangle: People + Technology + Organization
- Economic objectives and quality of work
- Self-empowerment and participation orientated empowerment of workers
- Avoidance of overstraining themselves or others
- Local leadership and leadership on distance
- Digitalized leadership and leadership in socio-digital transformation
- Divergent trends (according to Weber et al. 2018)

Digital systems replace leadership

Digital systems enable more self-control

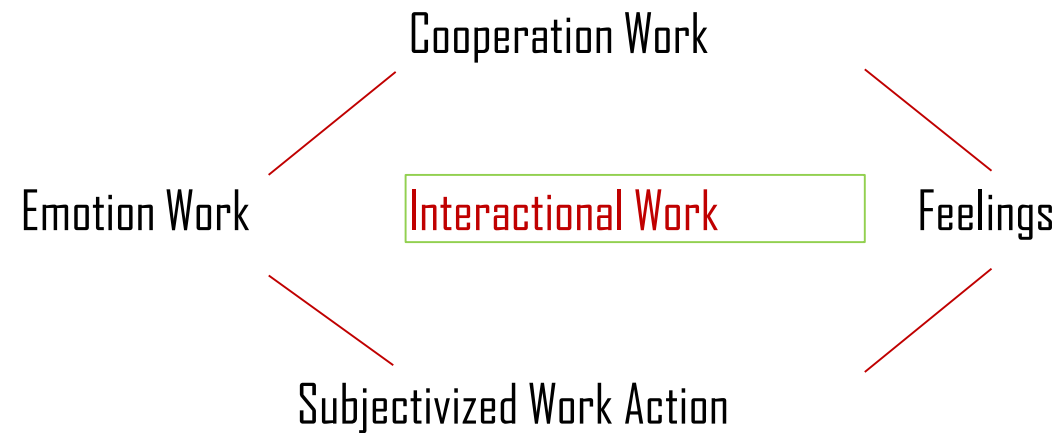
Digital systems complement leadership

Digital systems need leadership

"What needs to be learned here is not a form of 'correct interaction work' ... but, how to find out and carry out the right actions for each concrete situation in interaction situations."

(Source: Brater; Rudolf 2006, p. 270, quoted from Koch 2010, p. 117; Translation: Ralf Kopp)

How to develop an approach of interaction orientated leadership...



(Source: Böhle; Stöger; Wehrich 2015, p. 19; quoted from: Böhle 2018, p. 39; Translation: Ralf Kopp)

Exploring the Labs for Development of Interactional Competence



Future Worklab
Fraunhofer IAO
(Stuttgart)



Demonstration Factory
Institute for Industrial Management FIR
(RWTH Aachen)

Leadership has less to fear the dynamics of technological innovation,
rather than from the stagnation of social innovation!



Many Thanks for your attention

List of Figures / Bibliography

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